

NASA's Terrestrial Planet Finder: Searching for Pale Blue Dots
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The last five years have seen a breakthrough in the centuries-long quest to find other solar systems --- planets of Saturn-Jupiter mass have been identified orbiting ~40 nearby stars. But what are the prospects for finding Earth-like planets in other solar systems? NASA's Origins program has as one of its main goals a mission called the Terrestrial Planet Finder (TPF) that will be able to detect and characterize habitable planets out to 50 light years away. TPF, perhaps combined with the IRSI/Darwin mission presently under study in Europe, will be able to find planets that are Earth-like in essential respects: size, distance from their parent star, warm, wet, and with an oxygen-containing atmosphere. TPF is presently being studied by four industrial/academic groups within the US. I will summarize preliminary results from these studies and describe how the Origins program offers the prospect of revolutionizing humanity's perception of its place in the Universe by identifying life-bearing planets orbiting other stars.